

WHAT IS CLAIMED IS:

1. A processor system comprising:

a central processing unit;

a writeable memory;

5 means for external communication;

operation mode selection means for selecting an operation mode;

control means for stopping the operation of said central processing unit and writing to said memory an
10 IPL program transferred from the outside through said communication means when an IPL operation mode is selected by said operation mode selection means, and for thereafter canceling the stoppage of the operation of said central processing unit; and

15 IPL operation means for executing the IPL program written to said memory through the operation of said central processing unit to download a system program.

2. A processor system according to claim 1,
20 wherein said control means includes:

mapping control means for mapping said writeable memory to an area including an address which said central processing unit first reads immediately after startup in the IPL operation mode; and

25 write control means for controlling writing of the IPL program such that the writing starts from the address read first.

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3. A processor system according to claim 1,
wherein said control means includes:

detection means for detecting a situation where
transfer of the IPL program should be terminated; and

5 termination processing means for terminating
writing to said memory when a situation where the
transfer should be terminated is detected by said
detection means.

10 4. A processor system according to claim 3,
wherein said detection means detects a situation where
the transfer should be terminated by ascertaining that
a transferred data amount set in advance has been
reached.

15 5. A processor system according to claim 3,
wherein said detection means detects a situation where
the transfer should be terminated by detecting from
transferred data a code designating termination of
20 transfer.

25 6. A processor system according to claim 1,
wherein said control means includes bus control means
for changing a connection of a bus according to the
operation mode, and the bus control means changes the
memory as an IPL program writing destination according
to the operation mode.

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7. A processor system according to claim 1,
wherein said control means performs control such that a
check program for checking the operation or condition
of a certain device is written to said memory together
5 with the IPL program, and the check program is executed
when said central processing unit starts operating.

8. A processor system according to claim 7,
wherein the check program is a program for checking the
10 operation of a peripheral device connected to the
processor system.

9. A processor system according to claim 7,
wherein the check program is a program for checking the
15 state of a memory connected to the processor system.

10. A processor system according to claim 7,
wherein the check program is a program for checking the
state of connection of a peripheral device connected to
20 the processor system.

11. A method of starting a processor system
having a central processing unit, a writeable memory,
and a communication portion for external communication,
25 said method comprising the steps of:
stopping the operation of said central processing
unit when an IPL operation mode is selected;

writing to said memory an IPL program transferred from the outside through said communication portion;

canceling the stoppage of the operation of said central processing unit after said writing; and

5 executing the IPL program written to said memory through the operation of said central processing unit to download a system program.

12. A method according to claim 11, wherein said
10 writeable memory is mapped to an area including an address which said central processing unit first reads immediately after startup in the IPL operation mode, and said writing of the IPL program is controlled so as to start from the address read first.

15 13. A method according to claim 11, wherein a situation where transfer of the IPL program should be terminated is detected, and said writing to said memory is terminated when a situation where the transfer
20 should be terminated is detected.

14. A method according to claim 13, wherein a situation where the transfer should be terminated is detected by ascertaining that a transferred data amount
25 set in advance has been reached.

15. A method according to claim 13, wherein a situation where the transfer should be terminated is

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detected by detecting from transferred data a code designating termination of transfer.

16. A method according to claim 11, wherein the memory used as an IPL program writing destination is changed according to the operation mode by changing a connection of a bus according to the operation mode.

17. A method according to Claim 11, wherein control is performed such that a check program for checking the operation or condition of a certain device is written to said memory together with the IPL program, and the check program is executed when said central processing unit starts operating.

18. A method according to claim 17, wherein the check program is a program for checking the operation of a peripheral device connected to the processor system.

19. A method according to claim 17, wherein the check program is a program for checking the state of a memory connected to the processor system.

20. A method according to claim 17, wherein the check program is a program for checking the state of connection of a peripheral device connected to the processor system.

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